

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Bessede et al  
SERIAL NO.: 10/520,645  
FILING DATE: 01/05/05  
TITLE: Arcing Contact Element For Electric Equipment, Its Manufacturing  
Procedure, Contact Assembly And Corresponding Electric Equipment  
EXAMINER: Unassigned  
ART UNIT: Unassigned

**CERTIFICATE OF MAILING**

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop 16 Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450 on the date printed below:

Date: 4/17/06

Name: Annette Valdivia  
Annette Valdivia

MAIL STOP 16  
Commissioner for Patents,  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR REFUND OF FEES**

Dear Sir:

Applicant respectfully requests that the Patent and Trademark office issue a refund in the amount of \$960.00, to: THELEN REID & PRIEST LLP, deposit account no. 50-1698 which was charged in error by the United States Patent and Trademark Office for: code 1616 multiple dependent claims for \$360.00 and code 1615 additional claims for \$600.00. Attached is a copy of the Preliminary Amendment filed with the application on January 5, 2005 amending all multiple dependent claims to non-multiple dependent claims. Therefore, eliminating fees for multiple dependent claims. Also, enclosed is the fee transmittal and copies of checks for payment of fees.

Respectfully submitted,  
THELEN REID & PRIEST LLP

Dated: 14 Jan 2006

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P.O. Box 640640  
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Robert E. Krebs, reg. no. 25,885

Adjustment Date: 10/06/2006 THOLLAND  
07/15/2005 DCOTTMAN 00000002 501698 10520645  
01 FC:1615 600.00 CR  
02 FC:1616 360.00 CR

COPY

Docket No.: 034299-620

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: BESSEDE, Jean-Luc et al.  
SERIAL NO.: Herewith  
TITLE: Arc Contact Element for an Electrical Apparatus, Production  
Method Thereof, Corresponding Contact Assembly and Electrical  
Apparatus  
EXAMINER: UNASSIGNED  
ART UNIT: UNASSIGNED

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COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria VA 22313-1450

**PRELIMINARY AMENDMENT**

Dear Sir:

Prior to examination, please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims, which begins on page 3  
of this paper.

Remarks / Arguments begin on page 6 of this paper.

**Amendments to the Specification:**

Please amend the specification by inserting the paragraph below, after the title on page 1.

**Cross-Reference to Related Application**

[0001.1] This application claims priority based on International Patent Application No. PCT/FR2003/002069, entitled "Arc Contact Element for an Electrical Apparatus, Production Method Thereof, Corresponding Contact Assembly and Electrical Apparatus" by BESSEDE, Jean-Luc; VISATA, Oana Irina; and PORTE, Jacques, which claims priority of French Application No. 02 08498, filed on July 5, 2002, and which was not published in English.

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (original) Arcing contact element (10,18) for electrical switching off equipment for medium and high tension, particularly for circuit breakers, this element being intended to be added to a fixed (8) or mobile (16) support belonging to a contact assembly of this switching off equipment, the said element (10, 18) being capable of occupying during operation an initial position in which it is in contact with another contact element (18,10) as well as a second position in which it is separated from this other contact element so as to allow interruption of the current in the equipment, the said contact element (10,18) including carbon fibres (26) embedded in a matrix (30,34) which includes at least one electrically conducting material characterised by the fact that the said matrix including at least one conducting material also includes carbon in the form of graphite.
2. (original) Element according to claim 1 characterised by the fact that the carbon fibres (26) include long fibres arranged according to three-dimensional braiding (28).
3. (original) Element according to claim 1, characterised by the fact that the conducting material represents a weight of between 10 and 50% of this contact element.
4. (original) Element according to claim 3, characterised by the fact that the conducting material represents a weight of between 20 and 40% of this contact element.
5. (original) Element according to claim 1, characterised by the fact that the size of the particles of the conducting material is between 0.1 and 200 micrometers.
6. (original) Element according to claim 5, characterised by the fact that the size of the particles of the conducting material is between 1 and 50 micrometers.

7. (original) Element according to claim 1, characterised by the fact that the electrically conducting material is copper.

8. (original) Element according to claim 1, characterised by the fact that the diameter of the carbon fibres (26) is between 0.1 and 50 micrometers.

9. (original) Element according to claim 8, characterised by the fact that the diameter of the carbon fibres (26) is between 2 and 15 micrometers.

10. (original) Element according to claim 1, characterised by the fact that it is roughly composed of carbon fibres (26) and the matrix (30, 34), consisting of at least one conducting material.

11. (original) Manufacturing procedure of an arcing contact element (10, 18) in accordance with any of the preceding claims, characterised by the fact that it includes the following stages:

- An arrangement (28) of the carbon fibres (16) is formed and
- These carbon fibres (26) are impregnated using the matrix (30, 34) including at least one conducting material.

12. (original) Procedure according to claim 11, characterised by the fact that the carbon fibres (26) are first partially impregnated with carbon so as to form a primary carbon matrix (30) with inset spaces (32), then by the fact that these inset spaces are filled with the conducting material so as to realise a secondary material (34) formed of this conducting material.

13. (currently amended) Contact unit for electrical switching off equipment for medium and high tension, particularly for circuit breakers, including a fixed (6) and mobile (14) contact device, each device (6, 14) being equipped with an arcing contact element (10, 18), these two contact elements (10, 18) being capable of presenting a first mutual contact position and a second mutual switching off position in which they are separated from each other, characterised by the fact that at least one arcing contact element (10, 18) is in accordance with any of claims 1 to 11 being capable of occupying during operation an initial position in which it is in contact with

another contact element (18,10) as well as a second position in which it is separated from this other contact element so as to allow interruption of the current in the equipment, the said contact element (10,18) including carbon fibres (26) embedded in a matrix (30,34) which includes at least one electrically conducting material characterised by the fact that the said matrix including at least one conducting material also includes carbon in the form of graphite.

14. (currently amended) Electric switching off equipment for medium or high tension, in particular circuit breakers, including a switching off chamber (2) equipped with a contact assembly (10, 18, 22), characterised by ~~the fact that this contact assembly is in accordance with the preceding claim~~ being capable of occupying during operation an initial position in which it is in contact with another contact element (18,10) as well as a second position in which it is separated from this other contact element so as to allow interruption of the current in the equipment, the said contact element (10,18) including carbon fibres (26) embedded in a matrix (30,34) which includes at least one electrically conducting material characterised by the fact that the said matrix including at least one conducting material also includes carbon in the form of graphite.


**REMARKS**

Entry of the foregoing amendment to the specification is requested to comply with the requirements of 37 C.F.R. 1.78(a)(2).


Favorable consideration and an early allowance of this application are earnestly solicited.

If the Examiner should be of the opinion that a telephone conference would be helpful in resolving any outstanding issues, the Examiner is urged to contact the undersigned.

Respectfully submitted,  
THELEN REID & PRIEST LLP

  
Robert E. Krebs  
Reg. No. 25,885

Dated: Jan 5, 2005

  
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*[Signature]*  
*[Signature]*

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034299-620

Thelen Reid & Priest LLP

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San Jose, CA 95113-1723

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PTO-1390 (Rev. 12-2004)

approved for use through 3/31/2007, OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		<b>ATTORNEY'S DOCKET NUMBER</b> 034299-620
<b>INTERNATIONAL APPLICATION NO.</b> PCT/FR2003/002069	<b>INTERNATIONAL FILING DATE</b> July 3, 2003	<b>U.S. APPLICATION NO. (if known, see 37 CFR 1.5)</b> unassigned
<b>TITLE OF INVENTION</b> Arc Contact Element for an Electrical Apparatus, Production Method Thereof, Corresponding Contact Assembly and Electrical Apparatus		<b>PRIORITY DATE CLAIMED</b> July 5, 2002
<b>APPLICANT(S) FOR DO/EO/US</b> BESSEDE, Jean-Luc; VISATA, Oana Irina; PORTE, Jacques		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).</li> <li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol> <p>Items 11 to 20 below concern document(s) or information included:</p> <ol style="list-style-type: none"> <li>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input checked="" type="checkbox"/> A preliminary amendment.</li> <li>14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.</li> <li>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).</li> <li>20. <input checked="" type="checkbox"/> Other items or information: PCT/IB/306; PCT/RO/101; PCT/IB/304; PCT/IB/308; WO2004/006275A2; PCT/ISA/220; PCT/ISA/210; PCT/IPEA/401; PCT/IPEA/416; PCT/IPEA/409; formal drawings; patent practitioners to be made of record</li> </ol>		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) unassigned		INTERNATIONAL APPLICATION NO. PCT/FR2003/002069		ATTORNEY'S DOCKET NUMBER 034299-620	
21. <input checked="" type="checkbox"/> The following fees are submitted:					
<input checked="" type="checkbox"/> a) Basic national fee .....\$300.00				\$	300.00
<input checked="" type="checkbox"/> b) Examination fee .....\$200.00				\$	200.00
<input checked="" type="checkbox"/> c) Search fee .....\$500.00				\$	500.00
TOTAL OF ABOVE CALCULATIONS.....\$1000.00				\$	1000.00
<input checked="" type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$250.00	\$	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).					
				\$	
CLAIMS		NUMBER FILED	NUMBER EXTRA	RATE	
Total claims		14 - 20 = 0		x \$50.00	\$ 0.00
Independent claims		4 - 3 = 1		x \$200.00	\$ 200.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$360.00	\$
TOTAL OF ABOVE CALCULATIONS =				\$	1200.00
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.					
				\$	
SUBTOTAL =				\$	1200.00
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).					
				\$	
TOTAL NATIONAL FEE =				\$	1200.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$	40.00
TOTAL FEES ENCLOSED =				\$	1240.00
				Amount to be refunded:	\$
				Amount to be charged:	\$
a. <input checked="" type="checkbox"/> A check in the amount of \$ 1000.00 <u>\$140.00</u> to cover the above fees is enclosed.					
b. <input type="checkbox"/> Please charge my Deposit Account No. 50-1698 in the amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed.					
c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-1698. A duplicate copy of this sheet is enclosed.					
d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2028					
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.497 (a) or (b)) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO:					
Robert E. Krebs Thelen Reid & Priest LLP P.O. Box 640640 San Jose CA 95164-0640 T: 408.292.5800 F: 408.287.8040					
SIGNATURE Robert E. Krebs NAME 25,885 REGISTRATION NUMBER					

EV310862048US

PATENT APPLICATION SERIAL NO.

10/520645

07/15/2005 DCOTTMAN 00000002 501698 10520645  
01 FC:1615 600.00 DA  
02 FC:1616 360.00 DA

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE  
FEE RECORD SHEET

Repl. Ref: 07/15/2005 DCOTTMAN 0012263400  
DA: 501698 Name/Number: 10520645  
FC: 9204 \$100.00 CR

01/13/2005 SHAJARRD 00000094 10520645

01 FC:1631 300.00 OP  
02 FC:1632 500.00 OP  
03 FC:1633 200.00 OP

07/15/2005 DCOTTMAN 00000001 10520645

01 FC:1642 400.00 OP

Adjustment date: 07/15/2005 DCOTTMAN  
01/13/2005 SHAJARRD 00000094 10520645  
02 FC:1632 -500.00 OP

Adjustment date: 10/06/2006 THOLLAND  
07/15/2005 DCOTTMAN 00000002 501698 10520645  
01 FC:1615 600.00 CR  
02 FC:1616 360.00 CR

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